

I CLAIM:

1. In a packet based display interface arranged to couple a multimedia source device to a multimedia sink device that includes a transmitter unit coupled to the source device arranged to receive a source packet data stream in accordance with a native stream rate, a receiver unit coupled to the sink device, and a linking unit coupling the transmitter unit and the receiver unit arranged to transfer a multimedia data packet stream formed of a number of multimedia data packets based upon the source packet data stream in accordance with a link rate that is independent of the native stream rate between the transmitter unit and the receiver unit, an enumeration method for the link rate and a pixel/audio clock rate comprising:

expressing the pixel/audio clock rate and the link rate with four parameters, A, B, C, and D based upon a master frequency 23.76GHz as $2^{10} \times 3^3 \times 5^7 \times 11^1$ Hz; and regenerating a pixel/audio clock from the link clock.

2. A method as recited in claim 1, wherein the pixel/audio clock rate = $2^A \times 3^B \times 5^C \times 11^D$ Hz.

3. A method as recited in claim 2, wherein A = 4 bits, B = 2 bits, C = 3 bits, and D = 1 bit.

4. A method as recited in claim 1, further comprising:
defining the link rate with four parameters, A', B', C', and D'.

5. In a packet based display interface arranged to couple a multimedia source device to a multimedia sink device that includes a transmitter unit coupled to the source device arranged to receive a source packet data stream in accordance with a native stream rate, a receiver unit coupled to the sink device, and a linking unit coupling the transmitter unit and the receiver unit arranged to transfer a multimedia data packet stream formed of a number of multimedia data packets based upon the source packet data stream in accordance with a link rate that is independent of the native stream rate between the transmitter unit and the receiver unit, a computer program product for enumerating the link rate and a pixel/audio clock rate comprising:

computer code for expressing the pixel/audio clock rate and the link rate with four parameters, A, B, C, and D based upon a master frequency 23.76GHz as $2^{10} \times 3^3 \times 5^7 \times 11^1$ Hz;

computer code for regenerating a pixel/audio clock from the link clock; and
computer readable medium for storing the computer code.

6. Computer program product as recited in claim 5, wherein the pixel/audio clock rate = $2^A * 3^B \times 5^C \times 11^D$ Hz.

7. Computer program product as recited in claim 6, wherein A = 4 bits, B = 2 bits, C = 3 bits, and D = 1 bit.

8. Computer program product as recited in claim 5, further comprising:
computer code for defining the link rate with four parameters, A', B', C', and D'.